



# Contaminant Screening Study Corrective Action Report

**ADMINISTRATIVE  
RECORD**

## Response to Audit Observations

The following outlines the corrective actions implemented by CDM to address the audit observations discussed during the onsite debrief and detailed in the Shaw Group (IT) audit report. Following each observation is a description of the corrective action (CA); person/team responsible for implementation of the CA; date the CA was implemented; and the process or schedule for internal reevaluation of the CA.

### (1) Observation by Auditors

"Directional indicators are not always shown on the Information Field Form (IFF) site map. Some of the reconnaissance teams only list the names of the streets that surround the property."

#### Description of Corrective Action

Record of Deviation/Request for Modification Form 000050 was completed to require north arrow on property sketches (Attachment 1).

#### Person/Team Responsible for Implementation of Corrective Action

Contaminant Screening Study (CSS) task leader (TL) [CSSTL]

#### Date the Corrective Action Took Effect

August 23, 2002

#### Process or Schedule for Internal Reevaluation of Corrective Action

IFFs were checked daily by the CSSTL.

### (2) Observation by Auditors

"Acronyms are sometimes used in the field logbooks to reference field document forms that may or may not be listed in the SAP or the SOPs. As an example, the acronym "AA" (Access Agreement) was written in one of the field logbooks, but is not referenced in any of the documents."

#### Description of Corrective Action

Only acronyms defined in the CSS SAP and/or SOPs are referenced in the logbook. Only acronyms not defined in the SAP or SOPs are referenced (defined) in the field logbooks.

#### Person/Team Responsible for Implementation of Corrective Action

CSSTL

#### Date the Corrective Action Took Effect

August 23, 2002

**Process or Schedule for Internal Reevaluation of CA**

Field logbooks were checked weekly by the CSSTL.

**(3) Observation by Auditors**

"The initials of the sampling team member recorded in the field logbooks are at times illegible. As a result, the auditors could not distinguish which reconnaissance team members had recorded the entries into the logbook."

**Description of Corrective Action**

Record of Deviation/Request for Modification Form 000049 was completed to require authors print names on entries for each property in field logbooks (Attachment 2).

**Person/Team Responsible for Implementation of Corrective Action**

CSSTL

**Date the Corrective Action Took Effect**

August 23, 2002

**Process or Schedule for Internal Reevaluation of CA**

Field logbooks were checked weekly by the CSSTL.

**(4) Observation by Auditors**

"The CDM staff has yet to decide on permanent archival procedures for the digital media. Currently, the digital photographs are downloaded from the cameras to the CDM network on a daily basis, the files are renamed to the address of the residence, and the files are stored on the local network. Once a week, the digital files are uploaded to the Helena, Montana CDM network and are also archived to compact discs which are identified by a document control number."

**Description of Corrective Action**

Once consensus is reached on a permanent archival procedure, a Record of Deviation/Request for Modification Form will be completed to include this procedure in SOP 4-2, Photographic Documentation of Field Activities.

**Person/Team Responsible for Implementation of Corrective Action**

CSSTL and Geographic Information Systems Specialist (GISS)

**Date the Corrective Action Took Effect**

Not applicable as consensus for a permanent archival procedures have not yet been reached.

#### **Process or Schedule for Internal Reevaluation of CA**

Once consensus for the permanent archival procedures have been reached, the CSSTL will verify that the Record of Deviation/Request for Modification Form is completed and implemented.

#### **(5) Observation by Auditors**

"Documentation that a photograph is taken of each residence was not always performed. Copies of logbook pages from a residence file dated August 20, 2002 did not contain this documentation."

#### **Description of Corrective Action**

Each photograph taken was documented in the field logbook after effective date.

#### **Person/Team Responsible for Implementation of Corrective Action**

CSSTL

#### **Date the Corrective Action Took Effect**

August 23, 2002

#### **Process or Schedule for Internal Reevaluation of CA**

Field logbooks were checked weekly by the CSSTL.

#### **(6) Observation by Auditors**

"Copies of the signed access agreements obtained by the reconnaissance teams are not carried by the field sampling teams in the event that they are questioned by the occupant of the residence."

#### **Description of Corrective Action**

From the time period between the beginning of the CSS (May 13, 2002) to the date of the audit completion (August 22, 2002), no field team was challenged from an owner about access being granted to collect soil samples. As such, CDM did not implement the suggestion of having soil sampling teams carry copies of access agreements. In addition it was more time efficient to call back to the office for access agreements to be delivered to the site if questioned than to copy/find access agreements everyday since historically no access challenges were experienced.

#### **Person/Team Responsible for Implementation of Corrective Action**

Not applicable

#### **Date the Corrective Action Took Effect**

Not applicable

**Process or Schedule for Internal Reevaluation of CA**

Not applicable

**(7) Observation by Auditors**

"All field teams were observed performing decontaminations between composite samples. However, these decontaminations were not being documented in the field logbooks."

**Description of Corrective Action**

A separate entry was added into the logbook for each residence documenting that the equipment is decontaminated between the collection of samples.

**Person/Team Responsible for Implementation of Corrective Action**

CSSTL

**Date the Corrective Action Took Effect**

August 23, 2002

**Process or Schedule for Internal Reevaluation of CA**

Field logbooks were checked weekly by the CSSTL.

**(8) Observation by Auditors**

"The field sampling teams are drying the equipment with paper towels instead of air drying as stated in the SOP for Soil Sample Collection (SOP No: CDM-LIBBY-05). The use of paper towels may introduce paper fibers onto the samples."

**Description of Corrective Action**

Record of Deviation/Request for Modification Form 000054 was completed to include the use of paper towels in the drying process (Attachment 3). In addition as per the EPA project chemist, paper fibers should not interfere with the sample analysis.

**Person/Team Responsible for Implementation of Corrective Action**

CSSTL

**Date the Corrective Action Took Effect**

September 5, 2002

**Process or Schedule for Internal Reevaluation of CA**

Not applicable

### **(9) Observation by Auditors**

"A wire brush is used by 3 of the 4 field sampling teams to decontaminate the soil sampling equipment (i.e., stainless steel mixing bowl, trowel, pick axe). The auditors observed that the wire brush scratches the stainless steel mixing bowl used to mix the subsamples."

#### **Description of Corrective Action**

Record of Deviation/Request for Modification Form 000054 was completed to remove the use of the wire brush during decontamination procedures (Attachment 3).

#### **Person/Team Responsible for Implementation of Corrective Action**

CSSTL

#### **Date the Corrective Action Took Effect**

September 5, 2002

#### **Process or Schedule for Internal Reevaluation of CA**

CSSTL verified that after September 5, 2002 wire brushes were not being used.

### **(10) Observation by Auditors**

"The sample duplicates collected are not co-located samples as described in the SAP. The sample duplicates are currently split samples of the composite field sample."

#### **Description of Corrective Action**

Record of Deviation/Request for Modification Form 000057 was completed to document the change in sample duplicate collection procedures (Attachment 4).

#### **Person/Team Responsible for Implementation of Corrective Action**

CSSTL

#### **Date the Corrective Action Took Effect**

September 13, 2002

#### **Process or Schedule for Internal Reevaluation of CA**

CSSTL observed soil sampling procedures weekly.

### **(11) Observation by Auditors**

"Some of the field sampling teams were observed removing material (i.e., twigs, rocks, vegetative matter, etc.) from the composite samples in the mixing bowls."

#### **Description of Corrective Action**

Soil sampling teams were instructed not to remove material from the mixing bowl prior to making the composite sample.

#### **Person/Team Responsible for Implementation of Corrective Action**

CSSTL

#### **Date the Corrective Action Took Effect**

August 23, 2002

#### **Process or Schedule for Internal Reevaluation of CA**

CSSTL observed soil sampling procedures weekly.

### **(12) Observation by Auditors**

"The sampling times recorded on the FSDSs and field logbooks for each sampling location are sometimes suspiciously uniform and appear to be recorded prior to sample collection. One field sampling team was observed recording sampling times prior to sample collection, with each of the entries exactly 10 minutes apart. The actual collection of the samples varied for the prerecorded times."

#### **Description of Corrective Action**

Sampling teams were instructed to record sample collection times at the time of collection.

#### **Person/Team Responsible for Implementation of Corrective Action**

CSSTL

#### **Date the Corrective Action Took Effect**

August 23, 2002

#### **Process or Schedule for Internal Reevaluation of CA**

CSSTL observed soil sampling procedures and reviewed logbooks and chain of custody (COC) forms weekly.

### **(13) Observation by Auditors**

The following items were observed during a review of the field logbooks and associated documentation:

- The inside insert that is attached to all of the field logbooks is missing from one logbook. This insert contains the CDM Site Manager contact and instructions on the fields in the logbook that are required to be completed on a daily basis.
- The name of the owner on one IFF does not match the name of the owner on the FSDS. The IFF lists the owner's name as the occupant's name.
- The "QC By" field is not completed on one FSDS.
- Some of the inserts (i.e., BD# stickers) are not permanently affixed on documents and in the field logbooks.
- On several of the access agreements, the owner/occupant signed but did not date the form.
- The COCs are not referenced in the field logbooks.

#### **Description of Corrective Action**

- Insert was added to logbook.
- IFF was corrected.
- Field was completed.
- All inserts from August 23, 2002 forward were permanently affixed.
- Teams were instructed to ensure the owner/occupant signed and dated the access agreement form.
- Teams were instructed to reference COCs in field logbooks.

#### **Person/Team Responsible for Implementation of Corrective Action**

CSSTL

#### **Date the Corrective Action Took Effect**

August 23, 2002

#### **Process or Schedule for Internal Reevaluation of CA**

CSSTL reviewed field logbooks, FSDSs, and COCs weekly.

#### **(14) Observation by Auditors**

"On occasion, vermiculite/vermiculite product that was not observed by the reconnaissance team is observed by the field sampling team during the collection of samples. Depending on the amount of vermiculite/vermiculite product observed, the subsamples containing the vermiculite product may or may not be used as part of the composite. The SAP states that if vermiculite/vermiculite product is observed in a land-use area, samples will not be collected in this area."

##### **Description of Corrective Action**

Samples were collected with the amount of vermiculite observed was minimal (few flakes). The suggestion from the EPA project chemist was for CDM to develop a 3 to 4 component characterization scheme to qualitatively describe the amount of vermiculite observed in field soils that may be used in future field investigations (subsequent to the CSS study). However, because only 3 to 4 weeks were left in the field effort, and at the direction of the EPA RPM, the approach was not implemented during the 2002 field season but may be used during the 2003 field season.

##### **Person/Team Responsible for Implementation of Corrective Action**

Not applicable

##### **Date the Corrective Action Took Effect**

Not applicable

##### **Process or Schedule for Internal Reevaluation of CA**

Not applicable

#### **(15) Observation by Auditors**

"The COC records still reference Method EPA 600/4-84-054 for the preparation of rinsate samples. The correct method as stated in the project specific modification is EPA Method 120.1, revision 3."

##### **Description of Corrective Action**

The COC template was corrected.

##### **Person/Team Responsible for Implementation of Corrective Action**

Sample coordinator.

##### **Date the Corrective Action Took Effect**

August 23, 2002

##### **Process or Schedule for Internal Reevaluation of CA**

Not applicable



### **(16) Observation by Auditors**

"Heavy-duty plastic garbage bags are placed as liners in each sample cooler. This is in accordance with CDM SOP 2-1, Packaging and Shipping of Environmental Samples, but deviates from the project specific modification dated May 8, 2002."

#### **Description of Corrective Action**

Record of Deviation/Request for Modification Form 000045 was completed to include the use of lined coolers during sample shipment (Attachment 7).

#### **Person/Team Responsible for Implementation of Corrective Action**

CSSTL and sample coordinator.

#### **Date the Corrective Action Took Effect**

July 15, 2002

#### **Process or Schedule for Internal Reevaluation of CA**

Not applicable

### **(17) Observation by Auditors**

"The drain plugs on some of the sample coolers are not secured with fiber or duct tape as specified in SOP 2-1."

#### **Description of Corrective Action**

Drain plugs were secured with fiber or duct tape after effective date.

#### **Person/Team Responsible for Implementation of Corrective Action**

Sample coordinator

#### **Date the Corrective Action Took Effect**

August 23, 2002

#### **Process or Schedule for Internal Reevaluation of CA**

All coolers were checked prior to shipment to ensure the drain plugs were secured.

### **(18) Observation by Auditors**

"The SAP describes a requirement that copies of the IFF be faxed daily to the Volpe Center. Currently the IFFs are mailed weekly to the Volpe Center due to the large number of IFFs."

#### **Description of Corrective Action**

Record of Deviation/Request for Modification Form 000052 was completed to indicate IFFs are mailed weekly (Attachment 6).

**Person/Team Responsible for Implementation of Corrective Action**

CSSTL

**Date the Corrective Action Took Effect**

September 5, 2002

**Process or Schedule for Internal Reevaluation of CA**

Not applicable

**(19) Observation by Auditors**

"There is currently no system in place for updating copies of the SAP and SOPs that are in the possession of the reconnaissance teams and the field sampling teams. Currently when modifications are made to either the SAP or the SOPs, the teams are verbally informed of the changes."

**Description of Corrective Action**

A binder with all modifications was distributed to each field team member.

**Person/Team Responsible for Implementation of Corrective Action**

CSSTL

**Date the Corrective Action Took Effect**

September 25, 2002

**Process or Schedule for Internal Reevaluation of CA**

Updates are made to the binders when modifications are made to the SAP or the SOPs.

**(20) Observation by Auditors**

"During review of the FSDSs and IFFs, the following observations were observed:

- On the FSDS the field, "Grid, Quadrant, Section" is not completed.
- On the IFF site map, when symbols are used to identify locations where vermiculite product is observed (\*) or where subsamples were collected (Y), a legend or key is not always available to signify what the symbol means."

**Description of Corrective Action**

- Record of Deviation/Request for Modification Form 000053 was completed stating that the "Grid, Quadrant, Section" field will not be used (Attachment 7).
- A legend or key is added to each site map on the IFF to explain what each symbol is.

**Person/Team Responsible for Implementation of Corrective Action**

CSSTL

**Date the Corrective Action Took Effect**

- September 5, 2002
- August 23, 2002

**Process or Schedule for Internal Reevaluation of CA**

Not applicable

**(21) Observation by Auditors**

"There is currently no system in place to identify the latest versions of the field documents other than the time stamp of the electronic files."

**Description of Corrective Action**

A footer with the revision number was added to each field document.

**Person/Team Responsible for Implementation of Corrective Action**

Sample coordinator

**Date the Corrective Action Took Effect**

August 23, 2002

**Process or Schedule for Internal Reevaluation of CA**

Prior to making copies of field documents for use by the field teams, the original was checked to insure the copies were of the latest revision.

**(22) Observation by Auditors**

"While observing one of the field sampling teams, the samplers noticed that the residence address on the last few pages on the IFF did not match the residence being sampled, and the site map did not match the layout of the property. Further investigation at the CDM office discovered that an incorrect address was recorded on the residence file folder, field logbook, and some of the IFF pages. (The correct address was the adjacent residence). As a result, the correct address was not entered in the Sample Control software (Elastic) due to the duplicate address. In addition, the photographs of the two residences (120 Forest Avenue and 140 Forest Avenue) were both identified using the same resident file name (140 Forest Avenue). Note that by examining the two photographs, the correct addresses were found by looking at the street address located on the front of one of the houses."

**Description of Corrective Action**

CSSTL checked field documentation daily.

**Person/Team Responsible for Implementation of Corrective Action**

CSSTL

**Date the Corrective Action Took Effect**

August 23, 2002

**Process or Schedule for Internal Reevaluation of CA**

CSSTL checked field documentation daily.